

5. (Amended) A burner as claimed in Claim 1, wherein the gas expansion chamber is located downstream of the junction between the inlet port and the respective torch conduit.

6. (Amended) A burner as claimed in claim 1, wherein said inlet ports feed oxygen, hydrogen, waveguide deposition material carried by a carrier gas, and aerosol droplets of a dopant ion solution carried by a carrier gas to the said burner.

8. (Amended) A burner as claimed in Claim 6, wherein the aerosol inlet port is located downstream of the hydrogen inlet port.

9. (Amended) A burner as claimed in Claim 6, wherein the oxygen inlet port is located downstream of the aerosol inlet port.

10. (Amended) A burner as claimed in claim 1, wherein said at least one inlet port is located in a radial plane with respect to a longitudinal axis of the burner which differs from a radial plane containing said other inlet ports.

12. (Amended) A burner as claimed in claim 1, wherein said at least one inlet port is orientated at a first angle with respect to the burner axis, and wherein the other inlet ports are orientated at a second angle with respect to the burner axis, said first angle being less than said second angle.

14. (Amended) A burner as claimed in Claim 12, wherein said first angle lies in the range 5° to 25°.

15. (Amended) A burner as claimed in claim 1, wherein said at least one inlet port is an aerosol inlet port for providing aerosol droplets of a dopant ion solution to said burner.

**Please cancel claim 16.**